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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

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RAMAKRISHNATAH, M

ART UNIT

PAPER NUMBER

2643

DATE MAILED:

01/18/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/454,219

Applicant(s)

Jordan James Nicol

Examiner

Melur Ramakrishnaiah

Group Art Unit

2643

☒ Responsive to communication(s) filed on Dec 9, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 46-57 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 46-57 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 10

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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In view of the papers filed 9-27-00, it has been found that this nonprovisional application, as filed, through error and without deceptive intent, improperly set forth the inventorship, and accordingly, this application has been corrected in compliance with 37 CFR 1.48(a). The inventorship of this application has been changed by adding inventors: Henry Li, David M. Enns, Kenny C. Kwan, Rossy Mitchell, Wilf LeBlanc, Ken Unger, Shawn Stevenson, Bill Boora, Onur Tackin, Scott Branden and Chad Griifiths.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of the file jacket and PTO PALM data to reflect the inventorship as corrected.

Specification

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification is objected to under 35 U.S.C. 112, first paragraph, as failing to provide an enabling disclosure.

2. Claims 48, 50-52, 55 and 57 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

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Claim 48 contains elements such as “having an accumulator ... from the packet based network in a second phase”, there is no corresponding disclosure in the specification.

Claim 50 contains elements such as “a divider to generate ... from the packet based network”, there is no corresponding disclosure in the specification.

Claim 51 contains elements such as “a combiner to apply gain to the voice signal ... network based on the estimated characteristic”, there is no corresponding disclosure in the specification.

Claim 52 contains elements such as “a resource manager that estimates voice exchange complexity ... complexity exceeds a threshold”, there is no corresponding disclosure in the specification.

Claim 55 contains elements such as “generate an indicator if the spectral content of the signal satisfies a criteria, and a cadence processor ...based on the temporal characteristic”, there is no corresponding disclosure in the specification.

Claim 57 contains elements “signal estimator to estimate at least one parameter ... as a function of said at least one parameter”, there is no corresponding disclosure in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 46, 49, 52-53, are rejected under 35 U.S.C 102(b) as being anticipated by Lin et al. (Pub. No: WO 97/28628, hereinafter Lin).

Regarding claim 46, Lin discloses a signal processing system in (11, figs. 3 and 4), comprising: a voice exchange capable of exchanging voice signals between a network line (15, fig. 3) and a packet based network (13, fig. 3) (page 3 paragraph 2), a full duplex data exchange in (11, fig. 4) capable of exchanging data signals from the network line with demodulated data signals from the packet based network (13, fig. 4), the data signals from the network line (15, fig. 4) being modulated by a voice band carrier (page 11: paragraph 1, page 13: paragraphs 2-3), the data exchange in (11) further comprises data pump in (41, figs. 4 and 5) capable of demodulating the data signals from the network line for transmission on the packet based network and remodulating data signals from the packet based network with the voice band carrier for transmission over the network line (15) (page 14: paragraph 3).

5. Regarding claims 49 and 52-53, Lin teaches the following: voice exchange in (41) comprises a canceler to cancel a far end echo on a voice signal from a network line, and a bypass to selectively enable the canceler (page 14: paragraph 3). Resource manager that exchange voice exchange complexity to reduce voice exchange complexity (page 14: paragraphs 1-2), voice exchange in (11, fig. 4) comprises a detector (52, fig. 5) configured to receive voice signal from the network line (15, fig. 4), the data signal having plurality of samples, and to detect from a

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portion of the samples whether the voice signal from the network line comprises a tone (page 12: paragraph 2).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Wilkes et al. (Pub. No: WO 97/26753, hereinafter Wlikes).

Regarding claim 47, Lin teaches transmitting fax through local servers (11, fig. 3) connected to the Internet (13) and each gateways having modems in (11) (see figs 3-5 (page 16: paragraphs 1-3), but he does not explicitly show the following: data exchange further comprises a rate negotiator capable of negotiating a data rate with a first telephone device coupled to the network line, and renegotiating the negotiated data rate with a system coupled to the packet based network, the system containing a second telephony device.

However, Wilkes discloses a facsimile internet transmission system which teaches the following: data exchange (reads on 12, fig. 1) further comprises a rate negotiator capable of negotiating a data rate with a first telephone device (10, fig. 1) coupled to the network line, and renegotiating the negotiated data rate with a system coupled to the packet based network, the

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system containing a second telephony device (18) (page 17 lines 29-35, page 18 lines 8-12, page 19 lines 25-35, col. 20 lines 1-13).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Lin's system to provide for the following: data exchange further comprises a rate negotiator capable of negotiating a data rate with a first telephone device coupled to the network line, and renegotiating the negotiated data rate with a system coupled to the packet based network, the system containing a second telephony device as this procedure would help prevent data overflow/underflow during transmission and reception of data.

8. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Chen (US PAT: 5,987,061, filed 10-31-96).

Regarding claim 48, Lin does not teach data exchange that comprises a timing recovery circuit.

However, Chen discloses a modem initialization that teaches a timing recovery circuit that is used for compensating channel distortion (fig. 15, col.50 lines 43-47).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Lin's system to provide for data exchange that comprises a timing recovery circuit as this would provide means to compensate for any channel distortion as taught by Chen.

9. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Sugino et al. (US PAT:5,694,517, hereinafter Sugino).

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Regarding claim 55, Lin does not teach the following: spectral analyzer in voice exchange to analyze the spectral content of the voice signal from the network line to detect the tone in the voice signal from the network line.

However, Sugino teaches a spectrum analyzer to analyze the spectral content of the voice signal from the network line to detect the tone in the voice signal from the network line (col. 5 lines 9-21).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Lin's system to provide for spectral analyzer in voice exchange to analyze the spectral content of the voice signal from the network line to detect the tone in the voice signal from the network line as this arrangement would provide one of the ways among many available ways to determine the tone signal from a received signal as taught by Sugino.

10. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Schuster et al. (US PAT: 6,151,636, filed 2-5-98, hereinafter Schuster).

Regarding claim 50, Lin does not teach the following: quantizer in data exchange to quantize the data signal from a from the packet based network, a divider to generate a scaling factor and a multiplier to combine the scaling factor with data signal from the packet based network.

However, Schuster discloses data and media communications that teaches a quantizer (not shown) in data exchange to quantize the data signal from a from the packet based network, a

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divider to generate a scaling factor and a multiplier to combine the scaling factor with data signal from the packet based network (fig. 1, col. 13 lines 17-27, col. 14 lines 4-40).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Lin's system to provide for quantizer in data exchange to quantize the data signal from the packet based network, a divider to generate a scaling factor and a multiplier to combine the scaling factor with data signal from the packet based network as this would provide the necessary signal processing in the data exchange (reads on 20, fig. 1) to make the signal suitable for transmission to the destination terminal as taught by Schuster.

11. Claim 56 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Mekuria (US PAT: 5,970,441, filed 8-25-1997).

Regarding claim 56, Lin does not teach the following: voice detector comprising a pitch tracker to estimate pitch period of the data signal, and a frame based decision logic that compares the estimated pitch period to at least one threshold and detects the voice in the data signal as a function of estimated pitch period comparison, signal estimator to estimate at least one parameter of the voice signal from the network line, etc

However, Mekuria discloses detection of periodicity information from an audio signal that teaches the following: voice detector comprising a pitch tracker to estimate pitch period of the data signal, and a frame based decision logic that compares the estimated pitch period to at least one threshold and detects the voice in the data signal as a function of estimated pitch period

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comparison (col. 3 lines 4-19), signal estimator to estimate at least one parameter of the voice signal from the network line, etc (col. 4 lines 1-9)

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Lin's system to provide for voice detector comprising a pitch tracker to estimate pitch period of the data signal, and a frame based decision logic that compares the estimated pitch period to at least one threshold and detects the voice in the data signal as a function of estimated pitch period comparison, signal estimator to estimate at least one parameter of the voice signal from the network line, etc as this arrangement would provide method for determining voice activity that would help to increase traffic handling capacity of the network as taught by Mekuria (col. 1 lines 13-18).

12. Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Jones et al. (US PAT: 6,141,341, filed 9-9-1998, hereinafter Jones).

Regarding claim 51, Lin does not teach the following: voice exchange comprises a combiner to apply gain to the voice signal from the network line, an estimator to estimate a characteristic of the voice signal with gain, etc.

However, Jones discloses voice over internet protocol telephone system and method which teaches circuitry to apply automatic gain control to digital voice stream selectively (fig. 5 col. 5 lines 1-15).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Lin's system to provide for voice exchange that comprises a combiner to

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apply gain to the voice signal from the network line, an estimator to estimate a characteristic of the voice signal with gain, etc, as this would enable the user to get adequate voice quality for conversation.

13. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Lee et al. (US PAT: 6,023,470, filed 5-17-96, hereinafter Lee).

Regarding claim 54, Lin does not teach the following: data exchange comprising spoofing logic to selectively generate spoof data for a telephony device coupled to the network line in response to a format of the data signal received from the packet based network, the spoof data being generated with a format based on the format of the received data signal.

However, Lee discloses a point of presence (POP) for digital facsimile network with virtual POPS used to communicate with other networks which teaches POP's providing spoofing logic to maintain fax transmission between fax machines connected through the digital network (col. 3 lines 5-8, col. 5 lines 19-27, col. 53 lines 18-28).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Lin's system to provide for data exchange comprising spoofing logic to selectively generate spoof data for a telephony device coupled to the network line in response to a format of the data signal received from the packet based network, the spoof data being generated with a format based on the format of the received data signal as this arrangement would enable to maintain fax connections in view of network delays etc as taught by Lee.

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (703) 305-1461. The examiner can normally be reached on Monday to Friday from 7 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached on (703) 305-4708. The fax phone number for this Group is (703) 305-9508.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

15. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-6306, (for formal communications intended for entry)

Or:

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(703) 305-9508 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).


CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
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